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Analyzing the Relationship Between Growth Patterns and Poverty: A Socio-economic Perspective

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Abstract

The pattern of growth of the Indian economy has been such that the tertiary sector is the main driving force behind the growth of the Indian economy after the reforms and the share of the primary sector is declining. Also, the growth in the secondary sector is not that impressive. Though state-wise poverty ratios have witnessed a secular decline at the macro level but interstate disparities are clearly visible. But the degree of correlation between the increase in state domestic product and decrease in poverty is low, implying that there is a weak correlation between the increase in state domestic products and decrease in the poverty ratios. This can be interpreted as: an increase in income is no guarantee to poverty reduction, which in other words means economic growth doesn't simply trickle down.

1. Introduction :

Since July 1991 the Indian economy has witnessed a series of reforms, encompassing all major sectors of the economy which marks a steady break from the past policy regime. The public sector-oriented import-substituting development strategy, hitherto nurtured by the Indian planning regime since 1951, was given up in favour of an open for all, privatized, liberalized and globalized economy with export-linked growth strategy as a result of which India could no more keep aloof from the rest of the world, particularly if technological advances occurring elsewhere were to be assimilated and adapted to India's own production requirements. With the coming of the age of privatization, liberalization and globalization the age old economic philosophies have been replaced by the new one.

Now the effects of the reform process on the social sector particularly poverty is a matter of great debate. Whether the poors are included in this changing scenario is an important question. While flourishing cities and economic zones propound the virtues of emerging super power status of Indian state, the 'other India' is suffering acutely from the withdrawal syndrome. No one doubts growth, but whether this growth is inclusive or not or whether this growth is devoid of equality is an important question. If the situation is so that neither everyone is participating nor everyone is benefiting from the growth then this variance in the spread effects of the growth process is as serious as no growth altogether. This problematic phenomenon can be understood by studying the relationship between growth and poverty.

2. Review of Literature:

With the initiation of the reform process in 1991 the emphasis shifted towards the non-government sector governed by the market forces. Whether this shift has any impact on poverty becomes an important question. Several studies have been done by many economists and researchers on the present topic. However some of the relevant studies have been incorporated in this paper.

Jha and Sharma (2003) argued that poverty is concentrating itself into some particular areas. They conclude that the economic reforms programme has been unable to make any significant dent on the spatial distribution of expenditure poverty.

Maura (2004) argued for a better way to create inclusive development and growth emphasizing that unless India's growth percolates to its poor and underprivileged India will have a divided and unequal society and nation. He argued that India needs to create a consensus for inclusive growth. He stressed on how businesses must look beyond profits and emphasizes the critical need for collaboration between businessmen and government for nation building and presents a conceptual roadmap for India's future suited for its diverse economic, social and cultural needs.

Parikh and Radhakrishna (2004) were of the view that economic reforms have caused structural changes in the Indian economy as redeployment of resources often causes transitional problems as there are gainers and losers in resource allocation. On poverty reduction they said that while poverty has been reduced in all major states during the nineties, the process has been very much uneven and the poor got concentrated in less developed states and among a few vulnerable social groups. Agricultural labourers and artisans in rural areas and casual labourers in urban areas were most affected by poverty. Also, there was a difference in the rate of reduction in poverty between urban areas and rural areas with the former declining faster. They also take poverty to be a social phenomenon as poverty is disproportionately high among scheduled castes and scheduled tribes. They give three reasons for poverty growth not being impressive during the nineties. First, poor performance of agriculture; second, slowdown in expansion of rural employment and third, skewed spatial pattern of growth with less growth in areas where poor are mostly located.

Luthra (2005) advocates that though India has been on track to reduce income poverty, but the achievement in respect of human development concerns like that of health, education, availability of drinking water etc. have not been up to mark. The efforts to achieve a higher GDP growth during the foreseeable future will not be adequate to achieve the millennium goal of reducing by half the number of people in absolute poverty by the year 2015. The economic reforms and the new initiative taken have mainly benefited the sectors like industry, IT, services and external sector, but the government has not paid adequate attention towards sectors like agriculture, social sector and rural development. He warns that the data on GDP growth, production, foreign exchange reserves, poverty etc. should not comfort us as the situation on the ground is not happy as poverty is still rampant, quite visible in villages, town and cities, and not only that, reforms have also in fact increased inequality and the rich have become richer and the poor have become poorer leading to resentment and social jealousy which is boiling over into violence.

Sury, Mathur, Bhasin (2006) are of the view that to ensure the benefits of development planning flow to all parts of the country, regional balanced development has all along been accepted as an important national objective. However, the pattern of economic reforms over the years has not promoted this cherished objective. It has left in its trail a variety of inequalities which have caused socio-political tensions. Some states, such as, Karnataka, Andhra Pradesh and Maharashtra have surged ahead while others are lagging behind. While the economy has performed well since mid-1980s in terms of growth rate of GDP, its performance in terms of human development indicators has been unsatisfactory as it has not paid adequate attention to the social sector.

Objective of the Study:

There is a very strong debate in economic circles that these reforms and the changes in the economic structure of the country have rather neglected the social aspects. This study entitled "Growth Pattern and Poverty: A Socio-economic Analysis" attempts to analyze the effect of reform process on poverty and the presumed positive association between economic growth and poverty reduction. In this study net state domestic product and states' poverty ratio has been used for analyzing the above objective.

3. Research Methodology:

The study is extensively based on the secondary data. The relevant data have been collected from the various issues of Economic Survey and National Sample Survey Organization (NSSO) data. The data on national income pertains to the estimates of Central Statistical Organization as published in respective years' Economic Survey and the data on poverty is collected from various NSSO surveys. As far as the methodology is concerned, statistical technique of correlation has been used. In this study Spearman's Rank correlation coefficient is used for finding correlation, with the formula

$$R = 1 - \frac{6\Sigma D^2}{N\left(N^2 - 1\right)}$$

Where, R = Spearman's Rank Correlation Coefficient

D = Difference between the two Ranks

N = Total number of items

The technique of regression analysis is used to determine the statistical relationship between a single dependent variable and two and more than two independent variable. The regression equation to be used is $Y = a + b X_1 + c X_2 + d X_3 + U$.

Where, Y = dependent or explained variable

X_1 = first dependent or explanatory variable

X_2 = second dependent or explanatory variable

X_3 = third dependent or explanatory variable

a = intercept term

b = coefficient of first dependent or explanatory variable

c = coefficient of second dependent or explanatory variable

d = coefficient of third dependent or explanatory variable.

Here the dependent variable Y is expressed in terms of three independent variables. The greater the value of a particular regression coefficient, higher is the attribution of the changes in the dependent variable to that particular variable. In this study a multiple regression has been done with primary, secondary and tertiary sector as the independent variable and GDP growth rate as the dependent variable.

4. Result and Discussion:

A country is said to be growing if the share of the primary sector is decreasing and that secondary sector and tertiary sector is increasing. In view of the above perspective a multiple regression analysis is done in order to analyze the pattern of growth of the Indian economy. The coefficient of determination, denoted by R square, measures the magnitude of the association of the variables involved in multiple regression.

Table 1: Annual Growth Rates

(At factor cost in percentage)

Year	Primary Sector	Secondary Sector	Tertiary Sector	GDP
At constant 1993-94 prices				
1980-81	12.9	4.0	3.9	7.2
1981-82	5.7	7.4	5.7	6.0
1982-83	0.0	2.9	7.7	3.1
1983-84	9.1	8.7	6.2	7.7
1984-85	1.5	6.2	6.8	4.3
1985-86	1.0	4.7	8.2	4.5
1986-87	0.2	6.2	8.0	4.3
1987-88	-1.0	7.0	6.9	3.8
1988-89	15.4	8.6	7.9	10.5
1989-90	1.9	10.7	9.4	6.7
1990-91	4.6	7.4	5.5	5.6
1991-92	-1.1	-1.0	5.7	1.3
1992-93	5.4	4.3	5.3	5.1

1993-94	3.9	5.6	8.0	5.9
1994-95	5.3	10.3	6.4	7.3
1995-96	-0.3	12.3	9.8	7.3
1996-97	8.8	7.7	7.0	7.8
1997-98	-1.5	3.8	10.3	4.8
1998-99	5.9	3.8	8.5	6.5
1999-00	0.6	4.9	10.4	6.1
At constant 1999-00 prices				
2000-01	0.0	6.8	5.4	4.4
2001-02	5.9	2.8	6.84	5.8
2002-03	-5.9	6.9	7.04	3.8
2003-04	9.3	7.8	7.7	8.5
2004-05(P)	0.6	10	9.17	7.6
2005-06(Q)	5.8	10.1	9.66	9.0

Source: *Economic Survey, 2006-2007, Economic Division, Ministry of Finance, Government of India, Appendix Table No 1.2 and 1.6.*

In this study three regression equations are formed. The first is for the period 1980-81 to 1989-90. This period basically represents the pre-reform period. The post reform period is divided into two periods, one from 1990-91 to 1999-00 and other from 2000-01 to 2005-06, basically because of the change of base year.

(i) Growth Pattern:

(a) Regression equation for the period 1980-81 to 1989-90:

GDP = 0.005 + (0.368) Primary Sector + (0.279) Secondary Sector + (0.309) Tertiary Sector.

R square = 0.998

Adjusted R square = 0.996

Standard error of the estimate = 0.13578

F value = 829.546

P value = 0.000

(b) Regression equation for the period 1990-91 to 1999-00:

GDP = -0.699 + (0.348) Primary Sector + (0.284) Secondary Sector + (0.480) Tertiary Sector.

R square = 0.995

Adjusted R square = 0.992

Standard error of the estimate = 0.16063

F value = 396.703

P value = 0.000

(c) Regression equation for the period 2000-01 to 2005-06:

GDP = -0.277 + (0.265) Primary Sector + (0.249) Secondary Sector + (0.551) Tertiary Sector.

R square = 0.998

Standard error of the estimate = 0.15044

Adjusted R square = 0.995

F value = 347.629

P value = 0.003

The high value of R square and R square adjusted in all the three cases suggest that there is a strong relationship between the dependent variable, that is, GDP and three predictor variables of primary sector, secondary sector and tertiary sector. Further on comparing the P value at 5 percent significance level it is found that the P value in all cases is less than 0.05 which indicates that there is a significant relationship. And on performing the test of significance for all the sectors it is found that the t value is also significant at 5 percent level of significance (Appendix Tables).

The regression coefficient for the primary sector declined from 0.368 in the first period to 0.348 in the second period to further lower at 0.265 in the last period.

The regression coefficient for the secondary sector increased from 0.279 in the first period to 0.284 in the second period but decreased to 0.249 in the last period.

The regression coefficient for the tertiary sector increased from 0.309 in the first period to 0.480 in the second period and further to 0.551 in the last period.

In the eighties or rather before the reforms the regression coefficient for the primary sector was 0.36 while in the post reform period it reduced to 0.34. At the same time the standard error also increased from 0.008 to 0.34 indicating worsening of the situation. The share of the secondary sector more or less remained the same at 0.28, only the standard error increased from 0.020 to 0.28. This implies stagnation in the secondary sector if not exactly a worsening situation. In terms of the tertiary sector there was an improvement with the regression coefficient increasing from 0.29 to 0.47.

From the above analysis it can be safely concluded that the tertiary sector is the main driving force behind the growth of the Indian economy after the reforms and although the share of the primary sector is declining but the growth in the secondary sector is not that impressive particularly in the years after 2000.

With the initiation of the reform process in 1991 the emphasis shifted towards the non-government sector governed by the market forces. Whether this shift has any impact, particularly negative, on poverty becomes an important question. Poverty in India declined from 54.9 percent in 1973-74 to 36 percent in 1993-94. This decline was of 18.9 percent with an annual average decline of 0.94 percent. But during 1993-94 to 2004-05 this decline was by 8.5 percent, with an annual average decline of only 0.77 percent. If we take the period during 1973 to 1993-94 as pre-reform periods and the period during 1993-94 to 2004-05 as post-reform periods, we can say that reforms had no positive impact on poverty reduction, rather the rate of poverty reduction declined after the reforms.

(ii)Relationship between Growth and Poverty:

From this it can be concluded that the reform process at least did not have any positive impact on poverty reduction. A very simple but strong argument goes by the theme that if there needs to be an overall well being in an economy then there must be some growth. That is, once there is economic growth then poverty will subsequently decline. In Table-2 the correlation between economic growth and poverty ratios is calculated.

Table 2: Growth and Poverty Ratios

Year	GDP at factor cost	Poverty Ratios
	X (Rs.crore)	Y (%)
1973-74	311894	54.90
1977-78	374235	51.36
1983	471742	44.50
1987-88	556778	38.90
1993-94	781345	36.00
2004-05	1529408	27.50

Source: *Economic Surveys, GoI, Various Issues*

Result: $r = -0.901$, $P = 0.014$ (Appendix-i).

The above correlation analysis shows that there is a strong positive correlation between economic growth in terms of GDP at factor cost and poverty ratios. This correlation is significant at 0.05 levels. This turns out to be good news and establishes the fact that as India is growing economically the poverty is declining. Now in order to gain a further insight into this phenomenon a similar correlation analysis is to be done with state's economic growth measured by its net state domestic product and its respective poverty ratios.

(iii) Net State Domestic Products' Growth Pattern:

From the above discussion it becomes evident that particularly after the reforms the Indian economy has moved to a higher growth trajectory but there is a strong view point that the growth has been uneven. In order to study the pattern of growth rates of individual states and union territories, the per capita net state domestic product can be used. In Table-3 the states have been arranged in decreasing order in terms of their increase in per capita net state domestic product between 1980-81 to 1990-91 and 1990-91 to 2004-05.

Table 3: Per Capita Net State Domestic Product

(Rupees at current prices)

(1) State / UT	(2) 1980-81	(3) 1990-91	(4) 2004-05	5	6	7
Pondicherry	3201	7657	56034	4456	48377	43921
Goa	3200	8952	58184	5752	49232	43480
Madhya Pradesh	1609	4798	50993	3189	46195	43006
Delhi	4145	11373	53976	7228	42603	35375
Bihar	1022	2966	33357	1944	30391	28447
Haryana	2437	7721	32712	5284	24991	19707
Uttar Pradesh	1402	3937	25965	2535	22028	19493
Maharashtra	2492	7612	32170	5120	24558	19438
Himachal Pradesh	1820	5243	27486	3423	22243	18820
Kerela	1835	5110	27048	3275	21938	18663
Gujrat	2089	6343	28355	4254	22012	17758
Punjab	2629	8177	30701	5548	22524	16976
Tamil Nadu	1666	5541	25965	3875	20424	16549
Karnataka	1644	4975	23945	3331	18970	15639
Sikkim	1545	5213	24115	3668	18902	15234
Andhra Pradesh	1467	4816	23153	3349	18337	14988
West Bengal	1925	5072	22497	3147	17425	14278
Meghalaya	1528	4944	19577	3416	14633	11217
Arunachal Pradesh	1522	5231	19724	3709	14493	10784
Jammu & Kashmir	2152	4624	16190	2472	11566	9094
Orissa	1352	3166	13601	1814	10435	8621
Manipur	1396	3912	14901	2516	10989	8473
Rajasthan	1424	4883	16212	3459	11329	7870
Assam	1329	4432	13633	3103	9201	6098

Source: *Central Statistical Organization based on Directorate of Economics & Statistics of respective State Governments (as on 21-11-2005)*

Note: *Estimates based on 1993-94 series*
1. State/UT
2.1980-81
3. 1990-91
4. 2004-05 (P), Estimates is Provisional Estimates
5. Increase between 1980-81 & 1990-91 (col 3 – col 2)
6. Increase between 1990-91 & 2004-05 (col4 – col3)
7. Interstate differences in growth (col 6 – col 5), difference in the increase in NSDP between 2004-05 to 1990-91 and 1990-91 to 1980-81

It shows that the highest increase in per capita net state domestic product occurred in Pondicherry among union territories and in Goa among states and the lowest increase was in Assam. Assam was followed by Rajasthan, Manipur, Orissa and Jammu & Kashmir at the bottom of the order. An interesting feature is noted that the states like Madhya Pradesh, Bihar and Uttar Pradesh are among the top performers. A possible explanation for this could be that these states were recently divided in 2000 and the figures here pertains to the combined figures as Madhya Pradesh includes the states of Madhya Pradesh and Chattisgarh, Bihar includes the states of Bihar and Jharkhand and Uttar Pradesh consists of the states of Uttar Pradesh and Uttrakhand.

(iv) Net State Domestic Product and Poverty:

In Table-4, first the net state domestic product (NSDP) of the respective states and union territory are taken and then they are ranked accordingly in ascending order with rank first being given to the state with the lowest NSDP. Then the respective states' poverty ratio is taken and then they are also ranked in ascending order with the first rank being given to the state or union territory with the lowest poverty ratio. And finally with the help of Spearman's rank correlation method the correlation between net state domestic product and poverty ratio is calculated.

Table 4: States Ranked in Increasing Order as per Net State Domestic Product and Poverty Ratios (1993-94).

State/UT	NSDP	Rank of (i)	Poverty Ratio	Rank of (ii)	(ii) – (iii)	$(v)^2$
	(i)	(ii)	(iii)	(iv)	(v)	(vi)
Andhra Pradesh	51655	27	22.19	5	22	484
Arunachal Pradesh	812	4	39.35	22	-18	324
Assam	13477	14	40.86	24	-10	100
Bihar	34183	21	54.96	29	-8	64
Goa	2002	11	14.92	4	7	49

Gujrat	42560	23	24.21	6	17	289
Haryana	19422	17	25.05	7	10	100
Himachal Pradesh	4250	12	28.44	12	0	0
Jammu & Kashmir	5500	13	25.17	8	5	25
Karnataka	36982	22	33.16	13	9	81
Kerala	23851	18	25.43	9	9	81
Madhya Pradesh	46100	24	42.52	26	-2	4
Maharashtra	101767	29	36.86	18	11	121
Manipur	1141	6	33.78	14	-8	64
Meghalaya	1309	8	37.92	19	-11	121
Mizoram	618	3	25.66	10	-7	49
Nagaland	1251	7	37.93	20	-13	169
Orissa	16185	15	48.56	27	-12	144
Punjab	27068	19	11.77	2	17	289
Rajasthan	28977	20	27.41	11	9	81
Sikkim	337	1	41.43	25	-24	576
Tamil Nadu	51643	26	35.03	16	10	100
Tripura	1619	10	39.01	21	-11	121
Uttar Pradesh	75940	28	40.85	23	5	25
West Bengal	48398	25	35.66	17	8	64
A & N Islands	468	2	34.47	15	-13	169
Chandigarh	1371	9	11.35	1	8	64
Delhi	18967	16	14.69	3	13	169
Pondicherry	829	5	53.82	28	-23	529

Source: *(i) Economic Surveys, Government of India, Various Issues*
(ii) Report of the Expert Group on Estimation of Proportion and number of Poor, Perspective Planning Division, Planning Commission, New Delhi, July 1993.
Note:*(i) Net State Domestic Product in Rs Crores*
(ii) Ranking of States as per Net State Domestic Product in ascending order
(iii) Poverty Ratios of respective state/UT
(iv) Ranking of States/UTs as per Poverty Ratios
(v) Difference between the Ranks of States as per NSDP and Rank of State as per Poverty Ratios (ii – iv)
(vi) Square of the difference in Ranks
(vii) Poverty estimate are on a 30 days recall basis for 1999-00.

The same process is repeated in Table-5 for finding the correlation between NSDP and poverty ratio for the year 1999-00.

Table 5: States Ranked in Increasing Order as per Net State Domestic Product and Poverty Ratios (1999-00).

State/UT	**NSDP**	**Rank of (i)**	**Poverty Ratio**	**Rank of (ii)**	**(ii)-(iii)**	**(v)²**
	(i)	**(ii)**	**(iii)**	**(iv)**	**(v)**	**(vi)**
Andhra Pradesh	112966	26	15.77	11	15	225
Arunachal Pradesh	1457	4	33.47	22	-18	324
Assam	26273	14	36.09	25	-11	121
Bihar	64167	20	42.6	28	-8	64
Goa	5827	11	4.4	2	9	81
Gujrat	92280	24	14.07	9	15	225
Haryana	42922	16	8.74	7	9	81
Himachal Pradesh	10882	12	7.63	5	7	49
Jammu & Kashmir	12182	13	3.48	1	12	144
Karnatka	84696	22	20.04	13	9	81
Kerala	56944	19	12.72	8	11	121

Madhya Pradesh	90382	23	37.43	27	-4	16
Maharashtra	216641	29	25.02	17	12	144
Manipur	2466	6	28.54	19	-13	169
Meghalaya	2908	8	33.87	23	-15	225
Mizoram	1288	3	19.47	12	-9	81
Nagaland	2330	5	32.67	21	-16	256
Orissa	34223	15	47.15	29	-14	196
Punjab	54257	18	6.16	4	14	196
Rajasthan	69491	21	15.28	10	11	121
Sikkim	758	1	36.55	26	-25	625
Tamil Nadu	112554	25	21.12	15	10	100
Tripura	4193	10	34.44	24	-14	196
Uttar Pradesh	153498	28	31.15	20	8	64
West Bengal	116899	27	27.02	18	9	81
A & N Islands	848	2	20.99	14	-12	144
Chandigarh	3650	9	5.75	3	6	36
Delhi	48567	17	8.23	6	11	121
Pondicherry	2787	7	21.67	16	-9	81

***Source**: Various Economic Surveys and NSSO 55th Round Survey, Planning Commission, Government of India*
***Note:** Same as Table 4*

The same process is repeated in Table-6 for finding the correlation between NSDP and poverty ratio for the year 2004-05.

Table 6: States Ranked in Increasing Order as per Net State Domestic Product and URP Poverty Ratios (2004-05).

State/UT	**NSDP**	**Rank of (i)**	**Poverty Ratio**	**Rank of (ii)**	**(ii) – (iii)**	**$(v)^2$**
	(i)	**(ii)**	**(iii)**	**(iv)**	**(v)**	**(vi)**
Andhra Pradesh	183123	25	15.8	9	16	256
Arunachal Pradesh	2266	2	17.6	12	-10	100
Assam	38624	13	19.7	14	-1	1
Bihar	51194	14	41.4	27	-13	169
Jharkhand	37161	12	40.3	25	-13	169
Goa	8582	7	13.8	5	2	4
Gujrat	152516	23	16.8	10	13	169
Haryana	73645	16	14	6	10	100
Himachal Pradesh	17884	9	10	4	5	25
Jammu & Kashmir	18009	10	5.4	1	9	81
Karnataka	132198	22	25	20	2	4
Kerela	89452	19	15	8	11	121
Madhya Pradesh	91432	20	38.3	23	-3	9
Chattisgarh	33614	11	40.9	26	-15	225
Maharashtra	328451	28	30.7	21	7	49
Manipur	3680	3	17.3	11	-8	64
Meghalaya	4754	4	18.5	13	-9	81
Orissa	52240	15	46.4	28	-13	169
Punjab	79010	17	8.4	3	14	196
Rajasthan	98573	21	22.1	16	5	25
Sikkiim	1375	1	20.1	15	-14	196

Tamil Nadu	167183	24	22.5	18	6	36
Uttar Pradesh	205249	27	32.8	22	5	25
Uttranchal	17707	8	39.6	24	-16	256
West Bengal	189489	26	24.7	19	7	49
Chandigarh	6879	6	7.1	2	4	16
Delhi	83085	18	14.7	7	11	121
Pondicherry	5839	5	22.4	17	-12	144

Source: *(i) Economic Survey, 2006-2007, Economic Division, MoF, Government of India.*
(ii) Poverty Estimates for 2004-05, Press Information Bureau, Government of India, New Delhi, March, 2007
Note: *Same as Table 4*

(v) Net State Domestic Products' Growth and Change in Poverty Levels:

In Table-7 first the increase in NSDP between the period 1993-94 and 2004-05 is ranked in an ascending order with the state with the highest increase being given the first rank. Secondly, the states are again ranked according to their decrease in poverty between 1993-94 and 2004-05. Then, they are ranked in descending order with the first rank being given to states with the highest reduction in poverty.

Table 7: Ranking Of States as per Increase in Net Domestic Product and Decrease in Poverty Ratio between 1993-94 and 2004-05

State/UT	NSDP 2004-05	NSDP 1993-94	(i)-(ii)	Rank as per (i)-(ii)	Poverty Ratio 1993-94	Poverty Ratio 2004-05	(v) - (vi)	Rank as per (v)-vi)	(iv)-(viii)
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
Andhra Pradesh	183123	51655	131468	3	22.19	15.8	6.39	17	-10.61
Arunachal Pradesh	2266	812	1454	24	39.35	17.6	21.75	2	19.75
Assam	38624	13477	25147	15	40.86	19.7	21.16	4	17.16
Bihar	51194	34183	17011	16	54.96	41.4	13.56	9	4.56
Goa	8582	2002	6580	19	14.92	13.8	1.12	24	-22.88
Gujrat	152516	42560	109956	6	24.21	16.8	7.41	16	-8.59
Haryana	73645	19422	54223	11	25.05	14	11.05	11	0.05
Himachal Pradesh	17884	4250	13634	17	28.44	10	18.44	7	11.44
Jammu & Kashmir	18009	5500	12509	18	25.17	5.4	19.77	5	14.77
Karnataka	132198	36982	95216	7	33.16	25	8.16	14	-5.84
Kerala	89452	23851	65601	9	25.43	15	10.43	13	-2.57
Madhya Pradesh	91432	46100	45332	13	42.52	38.3	4.22	21	-16.78
Maharashtra	328451	101767	226684	1	36.86	30.7	6.16	18	-11.84
Manipur	3680	1141	2539	23	33.78	17.3	16.48	8	8.48
Meghalaya	4754	1309	3445	22	37.92	18.5	19.42	6	13.42
Orissa	52240	16185	36055	14	48.56	46.4	2.16	23	-20.84
Punjab	79010	27068	51942	12	11.77	8.4	3.37	22	-18.63
Rajasthan	98573	28977	69596	8	27.41	22.1	5.31	19	-13.69
Sikkim	1375	337	1038	25	41.43	20.1	21.33	3	18.33
Tamil Nadu	167183	51643	115540	5	35.03	22.5	12.53	10	2.53
Uttar Pradesh	205249	75940	129309	4	40.85	32.8	8.05	15	-6.95
West Bengal	189489	48398	141091	2	35.66	24.7	10.96	12	-1.04
Chandigarh	6879	1371	5508	20	11.35	7.1	4.25	20	-15.75

Delhi	83085	18967	64118	10	14.69	14.7	-0.01	25	-25.01
Pondicherry	5839	829	5010	21	53.82	22.4	31.42	1	30.42

Source: *Table 4 and Table 6.*
Note: *(i) States ranked as per increase in Net Domestic Product*
(ii) States ranked as per in decrease as per Poverty Ratios
(iii) Difference between the two ranks
(iv) Square of the difference between the two ranks

Correlation Analysis:

1. The Correlation Coefficient between Net State Domestic Product and Poverty Ratios (1993-94) as calculated from Table-4 = (-ve) 0.098. Here the P value is 0.615 (Appendix-ii).

2. The Correlation Coefficient between Net State Domestic Product and Poverty Ratios (1999-00) as calculated from Table-5 = (-ve) 0.076. Here the P value is 0.696 (Appendix-iii).

3. The Correlation Coefficient between Net State Domestic Product and Poverty Ratios (2004-05) as calculated from Table-6= (+ve) 0.217. Here the P value is 0.267 (Appendix-iv).

4. The Correlation Coefficient between states ranked in terms of increase in Net State Domestic Product between 1993-94 and 2004-05 and the respective decline in state Poverty Ratios as calculated from Table-7 = (-ve) 0.462. Here the P value is 0.020 (Appendix-v).

If we go by the reasoning of trickle down hypothesis it can be said that more the state domestic product lesser will be the poverty ratio and as the state domestic product of that particular state will increase more of the positive externalities would percolate to the bottom leading to diminishing poverty. Ironically, the correlation coefficient between state domestic product and poverty ratios shows a weak correlation. It is (-ve) 0.09 for 1993-94 and it is further weaker at (-ve) 0.07 for 1999-00. To make matter worse it turned (+ve) 0.21 in 2004-05, implying that the states with a higher per capita income had a higher poverty. That is to say, that more of income is no guarantee for lesser poverty. Same is the case for relationship between state domestic product and poverty ratio. When we analyze the situation on the basis of increase or decrease of state domestic product and poverty ratio between the years 1993-94 and 2004-05, almost all the states had significant deviation between ranks. Though state-wise poverty ratios have witnessed a secular decline from 1993-94 to 2004-05 at the macro level but interstate disparities are clearly visible. Also the poverty ratios have decreased during this period. But the degree of correlation between the increase in state domestic product and decrease in poverty between 1993-94 and 2004-05 is as low as (-ve) 0.462, implying that there is not a strong correlation between the increase in state domestic products and decrease in the poverty ratios. This can be interpreted as: an increase in income is no guarantee to poverty reduction, which in other words mean economic growth doesn't simple trickle down.

5. Conclusion:

While privatization, liberalization and globalization may alleviate poverty in those societies which have done their homework well and have completed the prerequisites of sustaining and spreading growth, it leads to marginalization and unequal growth in others. Now India's priorities should be to manage this social dualism between the integrated and excluded ones. The problem entirely doesn't lie with the reforms; rather the problem is with the approach of taking these reforms as the end rather as the means to a broader end. Reforms, only for the sake of reforms is not wanted rather reforms are needed for growth cum development. India's development strategy during the reform period is based on a rather updated version of the age old trickle down hypothesis which concentrates only on the core policies of simulating growth and strengthening market forces. However, the biggest limitation of these policies is non-inclusiveness. These policies could be beneficial from a broad social viewpoint given the structural reforms have been designed in such a way that the fruits of growth spread out to all parts and percolates to all layers of the society. In other words, social targeting policies could aid in further economic growth. This can be summarized as a development–growth-development spiral. Whenever there is a change in the policies there is bound to be some friction and resistance. The importance of participation lies in the fact that participation helps in forming a consensus to cope with the difficulties of the transition phase. The new focus of economic reforms has to be the empowerment of the public sector to do what it is supposed to do, that is, public services. In addition to the call for real decentralization the Planning Commission has to play the role of a provider of expertise and not that of a pure decision maker. It is as if the reform processes itself needs to be reformed. It would be totally foolish to say that the economic policy adopted by the founding fathers at the time of independence was wrong as India at that time was in no position to go for a private market economy with export oriented foreign policies because of many a factors rather India was smart enough to adopt the best of both the capitalist and socialist policies and when India transformed into an open and market oriented economy things didn't change like a fairytale. The problem is not with the policies rather the problem is with the implementation of the policies. India is experiencing elusive growth, which is not sustainable. In order to make its growth inclusive and sustainable, India has to look after its backward states/regions. If India wants to achieve the double digit growth figures or even sustain the current growth rate then it becomes imperative for India to concentrate on the backward states of Bihar, Jharkhand, Madhya Pradesh, Chattisgarh, Orissa, Uttar Pradesh and Uttranchal. This is indeed a problem and this is also where the opportunity lies.

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